Michigan Department of Licensing and Regulatory Affairs

Suggested Procedure for Calculation of New *Aim Value* During Film Crossover for Processor Quality Assurance Films Radiation Safety Section

New Aim Values can be calculated as follows:

(1)	Average OD from 5 new films (use same sensitometric step as the medium density step used with old film):	_____
(2)	Average OD from 5 old films (from medium density step):	_____
(3)	Subtract (2) from (1):	_____
(4)	Old Aim Value:	_____
(5)	Add (3) and (4) to obtain new Aim Value:	_____

When subtracting in line three, you must keep the proper sign.

If the average optical density for the new films is less than the average for the old films, the sign for the value in line three will be negative. You then will add a negative number to the old Aim Value, which will make the new Aim Value smaller. That is, if the new average optical density is **less** than the old average, the new Aim Value will be **less** than the old Aim Value (by the difference between the averages).

If the average optical density for the new films is greater than the average for the old films, the sign will be positive. You then will add a positive number to the old Aim Value, which will make the new Aim Value larger. That is, if the new average optical density is **greater** than the old average, the new Aim Value will be **greater** than the old Aim Value (by the difference between the averages).

Following is an example calculation:

Example: Old Aim Value =1.30

Average OD from old film: 1.23
Average OD from new film: 1.19

(1)	Average OD from 5 new films:	1.19
(2)	Average OD from 5 old films:	1.23
(3)	Subtract (2) from (1):	-.04
(4)	Old Aim Value:	1.30
(5)	Add (3) and (4) to obtain new Aim Value:	1.26